

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-SW-12-AD; Amendment 39-13354; AD 2003-22-06]

RIN 2120-AA64

Airworthiness Directives; Eurocopter France Model AS350B, B1, B2, B3, BA, C, D, D1, and AS355E, F, F1, F2, and N Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD) for the specified Eurocopter France (ECF) model helicopters that currently requires measuring the tail rotor pitch control rod (control rod) outboard spherical bearing (bearing) for radial and axial play. This amendment revises the requirement to measure control rod play. This amendment also adds the Eurocopter France Model AS350B3 helicopter and an additional control rod to the applicability, a daily check of the control rod bearing, a larger axial play limit, a more frequent AD compliance interval, and makes editorial changes for clarification. This amendment is prompted by additional service information and comments resulting in the FAA determination that the inspection interval should coincide with the normal maintenance interval, that the AD should apply to the ECF Model AS350B3 helicopter and an additional control rod, that the daily inspection should be a daily check, and that certain editorial changes are needed for clarification. The actions specified by this AD are intended to prevent separation of the bearing ball from its outer race, rubbing of the body of the control rod against the tail rotor blade pitch horn clevis, failure of the control rod, and subsequent loss of control of the helicopter.

DATES: Effective December 3, 2003.

FOR FURTHER INFORMATION CONTACT: Uday Garadi, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff, Fort Worth, Texas 76193-0110, telephone (817) 222-5123, fax (817) 222-5961.

SUPPLEMENTARY INFORMATION: In response to two commenters to the final rule, request for comments, a proposal to amend 14 CFR part 39 by superseding AD 98-24-35, Amendment 39-10921, Docket 98-SW-41-AD (63 FR 66418, December 2, 1998), for the specified ECF model helicopters, was published in the Federal Register on April 9, 2001 (66 FR 18416). The notice of proposed rulemaking (NPRM) proposed retaining the requirements in AD 98-24-35 and adding Eurocopter Model AS350B3 helicopter and control rod, P/N 350A33-3145-00, to the applicability.

The NPRM also proposed revising the AD inspection interval so that it does not exceed 30 hours time-in-service (TIS) to coincide with the normal maintenance interval, establishing a daily inspection of the control rod bearing, and increasing the axial play limit to 0.016 inch.

In response to the NPRM, we received various comments from 12 commenters. Because we agreed with some of the comments, which expanded the scope of the proposals, we issued a supplemental NPRM (SNPRM), published in the Federal Register on April 22, 2003 (68 FR 19761), reopening the comment period. The SNPRM retained most of the original proposals but proposed changing the daily inspection to a daily check that may be performed by an owner/operator (pilot) and proposed other editorial changes for clarification. As a result of publishing the SNPRM, one commenter provided additional comments. Due consideration has been given to the comments received.

The one commenter on the SNPRM states that 50 hours TIS between inspections of the control rods, as required by current AD 98-24-35, is adequate and that a change is unnecessary. The commenter further states, "In my experience the bearing wears initially between .002 -.003 inch axially and .001 inch radially and stabilizes in this range of play."

The FAA does not agree that a 50-hour TIS inspection interval is sufficient for control rods in which play has been detected, which is the focus of this AD action. The manufacturer recommends the 30-hour TIS inspection interval in Eurocopter Service Letter No. 1367-64-98. The FAA believes that .002-.003 axial and .001 radial play, suggested by the commenter, is not easily detectable by hand checking. Also, when the play is detected by hand, the wear will not stabilize but will increase in due course depending on TIS. The FAA has determined that the inspection interval for these control rods should not be extended above 30 hours TIS.

The commenter also states that the cost estimate "is not a true interpretation of the cost to operators." The commenter estimates flying 1200 hours a year, which will equate to 48 inspections, an increase of 25 percent or 12 additional inspections over the existing program. The commenter further states that his local maintenance shop rate is \$85 per hour. The commenter, therefore, projects an additional cost of \$1020 per year not including ferry time to a maintenance facility and extra out-of-service time while waiting for the inspection to be performed.

The FAA's estimate of the total cost is based on an average labor cost, which was \$60 per hour when the SNPRM was published but is now \$65 per hour. Further, we estimate that the two control rods will need to be replaced on all affected helicopters. We recognize that each operator will incur different costs based on the fleet and the number of operating hours. However, we believe that the commenter's estimate that 1200 flight hours yearly will equate to 12 additional inspections for a total additional annual cost of \$1,020 is high. We recognize that for his usage rate, the incremental increase from a 50-hour TIS interval to a 30-hour TIS interval could result in as many as 16 additional inspections per year. However, the inspection interval for this AD coincides with the normal maintenance interval. Also, only after a pilot or a mechanic detects play does this AD require measuring the play at intervals not to exceed 30 hours TIS. AD 98-24-35 requires that the play be measured at intervals not to exceed 50 hours TIS regardless of whether or not play has been detected. Establishing this play-detection threshold may reduce the needed ferry time to a maintenance facility since a pilot now may check for play. All facts considered, we do not agree that a change to the cost estimate is warranted except for increasing the labor rate from \$60 to \$65 per hour.

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require adopting the rule with the changes in the labor rate in the cost analysis and one relieving change in the AD language. Proposed paragraph (b)(4) was removed because it is unnecessary and was inadvertently included in the proposals. The paragraphs are renumbered accordingly. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's AD system. The regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. Because we have now included this material in part 39, we no longer need to include it in each individual AD.

The FAA estimates that this AD will affect 610 helicopters of U.S. registry, and the required actions will take approximately 1 work hour per helicopter to accomplish at an average labor rate of \$65 per work hour. Required parts will cost approximately \$1224 for two control rods per helicopter. Based on these figures, we estimate the total cost impact of the AD on U.S. operators to be \$786,290.

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing Amendment 39-10921 (63 FR 66418, December 2, 1998), and by adding a new airworthiness directive (AD), to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-22-06 Eurocopter France: Amendment 39-13354. Docket No. 2000-SW-12-AD. Supersedes AD 98-24-35, Amendment 39-10921, Docket No. 98-SW-41-AD.

Applicability: Eurocopter France Model AS350B, B1, B2, B3, BA, C, D, D1, and AS355E, F, F1, F2, and N helicopters, with tail rotor pitch control rod (control rod), part number (P/N) 350A33-2145-00 or 350A33-2145-01, installed, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent separation of the control rod outboard spherical bearing (bearing) ball from its outer race, rubbing of the body of the control rod against the tail rotor blade pitch horn clevis, failure of the control rod, and subsequent loss of control of the helicopter, accomplish the following:

(a) Before the first flight of each day, place the tail rotor pedals in the neutral position. If the helicopter is fitted with a tail rotor load compensator, discharge the accumulator as described in the rotorcraft flight manual. Check the bearing for play on the helicopter, by observation and feel, by slightly moving the tail rotor blade in the flapping axis while monitoring the bearing for movement. See the following Figure 1 of this AD:

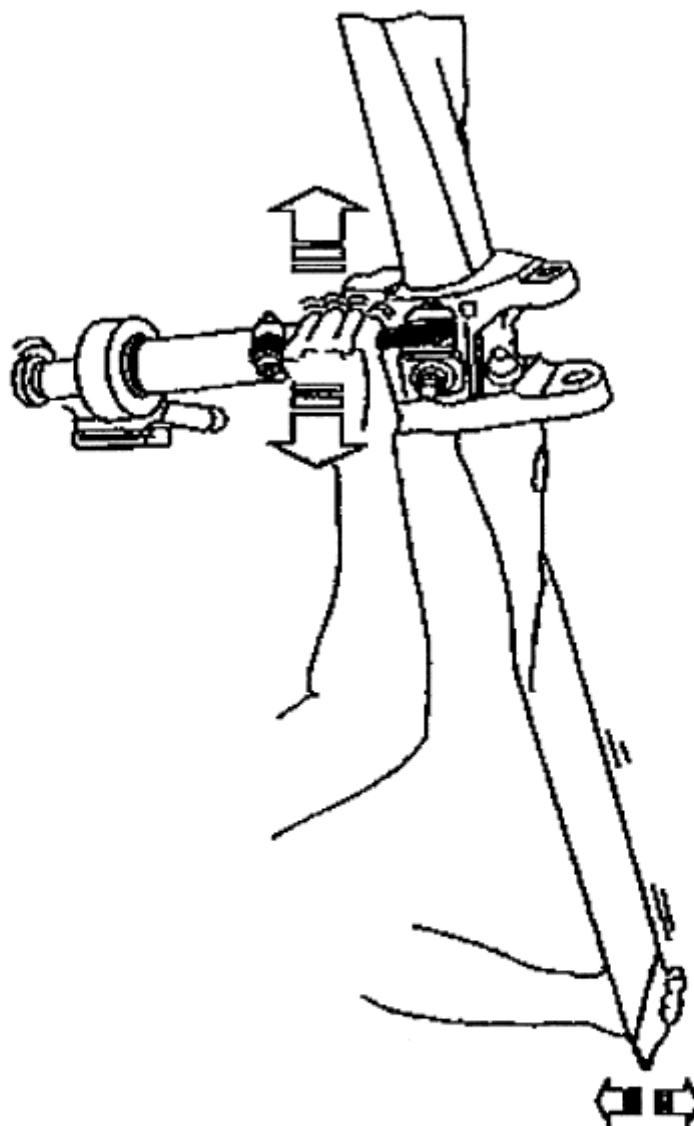


Figure 1: Manual Check for Play of the Tail Rotor Pitch Control Rod

(1) If the Teflon cloth is coming out of its normal position within the bearing, totally or partially, or if there is discoloration or scoring on the bearing, the bearing is unairworthy.

(2) An owner/operator (pilot) holding at least a private pilot certificate may perform this check and must enter compliance into the aircraft maintenance records in accordance with 14 CFR 43.11 and 91.417(a)(2)(v).

(b) If a pilot or mechanic detects play, a mechanic must remove the control rod from the helicopter, and using a dial indicator, measure the bearing wear according to the following and as shown in Figures 2 and 3 of this AD:

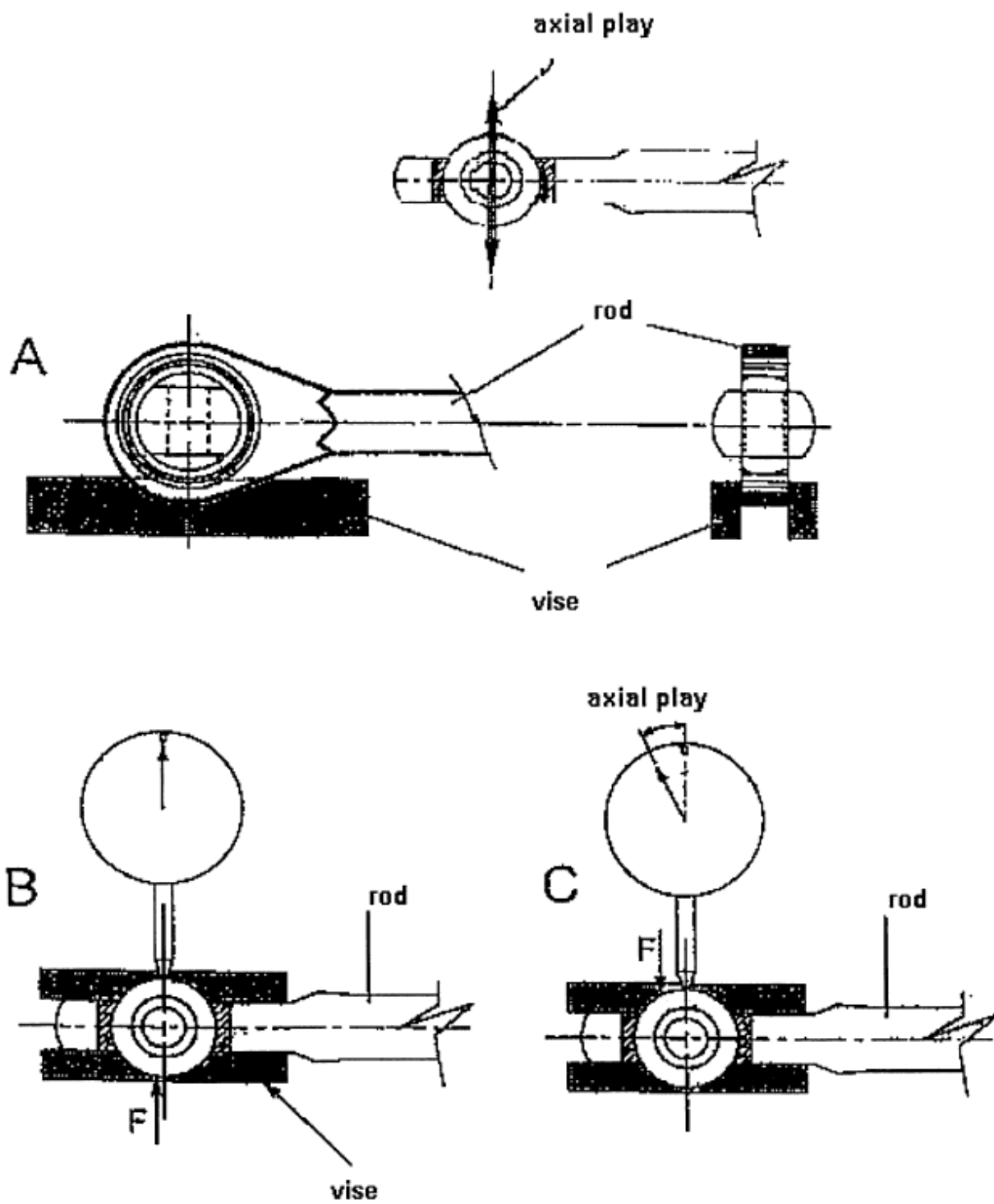


Figure 2: Measurement of the Axial Play (A) of the Bearing

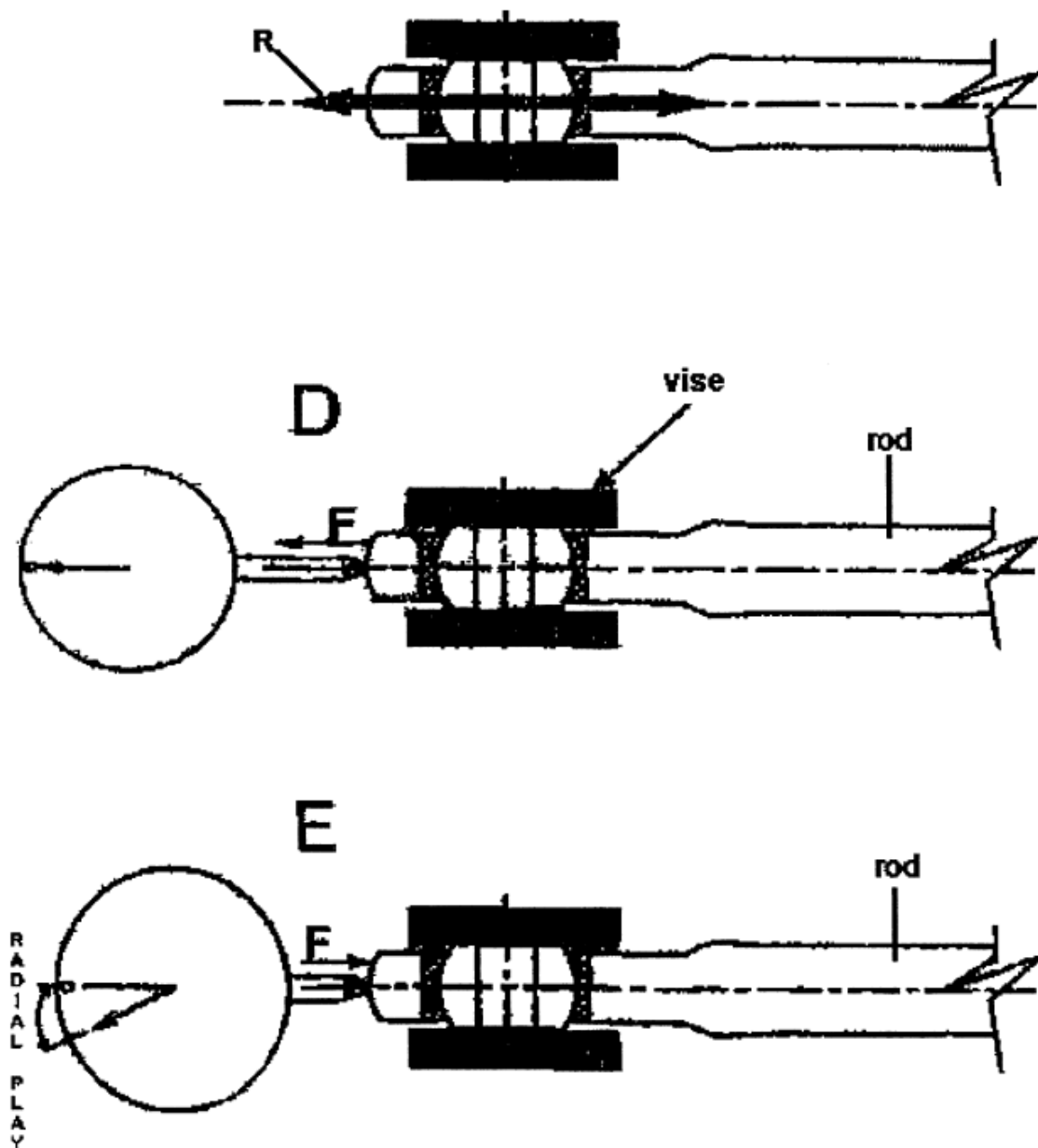


Figure 3: Measurement of the Radial Play (R) of the Bearing

- (1) Remove the control rod from the helicopter.
- (2) Mount the control rod in a vise as shown in Figure 2 of this AD.
- (3) Using a dial indicator, take axial play readings by moving the spherical bearing in the direction F (up and down) as shown in Figure 2 of this AD.
- (4) Mount the bearing in a vise as shown in Figure 3 of this AD.

(5) Using a dial indicator, take radial play measurements by moving the control rod in the direction F as shown in Figure 3 of this AD.

(6) Record the hours of operation on each control rod.

(7) If the radial play exceeds 0.008 inch or axial play exceeds 0.016 inch, replace the control rod with an airworthy control rod before further flight.

(8) If the radial and axial play are within limits, reinstall the control rod.

(9) Thereafter, at intervals not to exceed 30 hours TIS, remove the control rod and again measure the bearing play with a dial indicator in accordance with this paragraph.

(c) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Safety Management Group, Rotorcraft Directorate, FAA, for information about previously approved alternative methods of compliance.

(d) This amendment becomes effective on December 3, 2003.

Issued in Fort Worth, Texas, on October 22, 2003.

Scott A. Horn,

Acting Manager, Rotorcraft Directorate, , Aircraft Certification Service.

[FR Doc. 03-27211 Filed 10-28-03; 8:45 am]

BILLING CODE 4910-13-P